

Industry Perspective on Products & Commercial Pathways To Supply the Whole Barrel

Speakers

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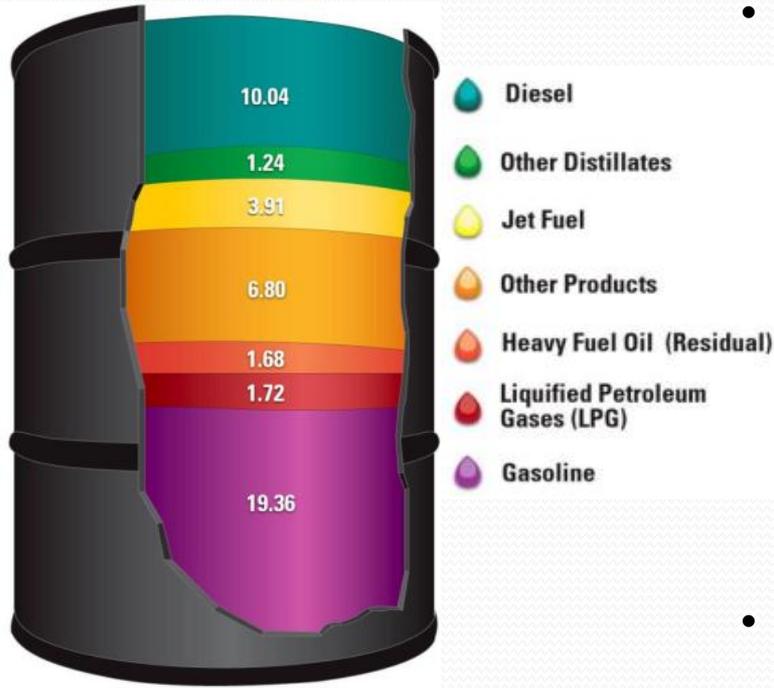
Linda Beltz – Director of Technology Partnerships,
Weyerhaeuser

Mark Jones – Technology Strategy Development Scientist,
The Dow Chemical Co.

Robert Schuetzle – CEO, SynTerra Energy Inc.

Replacing the Whole Barrel

Products Made from a Barrel of Crude Oil (Gallons)
(2009)



- Greater focus needed on research, development, demonstration, and deployment of a range of technologies to displace the entire barrel of petroleum crude
- Reducing dependence on oil will require developing technologies to replace other components of the barrel, such as diesel, jet, heavy distillates, and a range of chemicals and products
Cellulosic ethanol displaces light duty gasoline fraction only and only 40% of a barrel of crude is used to produce light duty gasoline.
Oil accounts for 94% of transportation fuel use (EIA), accounting for over 70% of total U.S. oil consumption.
- Nearly 22.3 million barrels of oil are required **every day** to fuel ~247 million light-duty vehicles on the road [www.api.org]

Discussion of commercial pathways and capabilities to expand beyond just liquid fuels – and why?

Cellulosic ethanol

- Is an important blending components in gasoline
- Can be used in today's light duty vehicle transportation infrastructure (up to 15% blend level)

Hydrocarbon biofuels

- Are “drop-in” fuels that can act as true petroleum substitutes in existing refineries
- Can leverage pre-existing petroleum refinery infrastructure for smooth process integration

Bio-based products/chemicals:

- Are marketable co-products during biomass & biofuels refining
- Can be substitute goods for specialty petrochemicals
- Diversify and bolster the biomass & biofuels refining value chain